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Serial No. 10/532,651  
Response to Office Action of June 12, 2006  
Amendment dated October 2, 2006

**REMARKS:**

The Applicants thank the Examiner for acknowledging the Applicants claim of foreign priority under 35 U.S.C. § 119 and for making the appropriate documents of record.

The Applicants thank the Examiner for acknowledging receipt of the Applicants information disclosure statement submitted on April 25, 2005 and for making the appropriate documents of record.

In regard to the Examiner's rejection of claim 1 under 35 U.S.C. § 102 based on the prior art reference *Santoruvo et al.* (Pub. No.: US2003/0116552 A1), the Applicants respectfully submit that the prior reference fails teach or suggest all of the limitations of the currently claimed invention. The currently claimed invention specifies that a metal oxide field effect transistor drives a heating element which is distally located from the drive transistor. (See Fig. 4, heating element 49, MOSFET 44). This configuration allows heating elements to be close to an ink duct which supplies ink to a head chip, thereby forming a simple structure the contributes to precision printing with high-resolution. (See page 11; see also Fig. 3).

Unlike the currently claimed invention, the device taught or suggested by *Santoruvo* requires that a section of the substrate below the channel portion of the MOSFET be removed such that the heat generated by the resistance in the channel portion of the MOSFET is able to heat material within the chamber created by the removal of the substrate material. (See ¶ [0032]). Furthermore, *Santoruvo* expressly describes the device as one of "an integrated heater comprised of a semiconductor material, with at least one transistor formed in the semiconductor material and operable to

Serial No. 10/532,651  
Response to Office Action of June 12, 2006  
Amendment dated October 2, 2006

generate heat, and an object to be heated positioned adjacent to the transistor to receive the heat generated by the transistor.” (See ¶ [0014]).

The Applicants respectfully submit that at no point does *Santoruvo* teach or suggest a MOSFET used to drive a heater distally located from the MOSFET. Therefore, Applicants respectfully submit that *Santoruvo* fails to teachers suggest every limitation of the currently claimed invention and subsequently cannot form the basis of a § 102 rejection.

In regard to Examiner's rejection claims 3 and 4 under 35 U.S.C. § 102 based on the prior art reference *Santoruvo et al.* (Pub. No.: US2003/0116552 A1), the Applicants respectfully submit claims 3 and 4, just like claim 1, require that the heater element driven by the MOSFET be distally located from the driving MOSFET. Therefore, for all the reasons identified above with respect claim 1, the Applicants respectfully submit the claims 3 and 4 also currently stand in condition for allowance.

In regard to the Examiner's rejection of claim 2 under 35 U.S.C. § 103 as being unpatentable over *Santoruvo et al.* (Pub. No.: US2003/0116552 A1) in view of *Silverbrook* (US 5,841,452), the Applicants respectfully submit that the prior art references cited by the Examiner, whether considered separately or in combination fail to teach or suggest all of the limitations of the currently claimed invention. The Applicants respectfully submit that Silverbrook, like *Santoruvo*, fails to teach or suggest driving a heating element by a MOSFET that is distally located from the driven heating element. Consequently, the Applicants respectfully submit a claim 2, which incorporates all the limitations of claim 1, currently stands in condition for allowance.

Serial No. 10/532,651  
Response to Office Action of June 12, 2006  
Amendment dated October 2, 2006

The Applicants respectfully request that the Examiner reconsider the rejections in light of the foregoing remarks and currently amended claims. The Applicants respectfully submit that all claims currently stand in condition for allowance.

Date:

10/2/06

Respectfully Submitted,

  
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